UNITED STATES PATENT AND TRADEMARK OFFICE

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10/064,612	07/31/2002	Tom-Chin Chang	9154-US-PA	6857

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EXAMINER
SETH, MANAV

ART UNIT	PAPER NUMBER
2624	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

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<tr><td rowspan="2">Office Action Summary</td><td>Application No.
10/064,612</td><td>Applicant(s)
CHANG, TOM-CHIN</td></tr>
<tr><td>Examiner
Manav Seth</td><td>Art Unit
2624</td></tr>
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-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>09 February 2007</u>.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-32</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-32</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   Applicant's amendment filed on February 09, 2007 has been considered and entered in full.

2.   Applicant's amendments to the claims have been fully considered but are not persuasive.

Response to Arguments

3.   Applicant's arguments with respect to the rejections made on claims 1-22 on pages 11-19 of

the amendment filed on February 09, 2007 have been fully considered but are not persuasive.

4.   On pages 11-19 of the Amendment, Applicant argues in substance:

      a. *Examiner fails to meet the initial burden of establishing a prima facie § 112(1) lack*

of enablement rejection and the information that the examiner claims is missing in not

missing.

The Examiner respectfully disagrees. Examiner in the previous office action mailed on

11/09/2006 rejected claims 1-22 under 35 USC 112 (1st) paragraph and these rejections on the

respective claims were made at its own merits in view of the specification as filed. In the rejections

examiner raised a question that, "how extracting of the plurality of bits from the signals and setting

the most significant bit of the second correction digital signal to a value of 1 would correct the

image to avoid error images or would generate a corrected image?". Examiner further pointed to (or

cited) different portions to the specification which recited extraction of bits from the image signals

and setting the MSB of the second correction signal to a value of 1 and further saving these

extracted bits in the memory". Clearly from the cited portions of the specification, after the bits are

extracted and the MSB of the second correction signal is set to a value of 1, the data is stored in the

memory and there is no information in the specification how this data is further used to correct the

specified error such as LBB error. The description of the invention do not have any information on

how setting of MSB of the second correction to 1 along with the few extracted bits would be used

to correct the error since there is no processing of these bits after these bits are saved in the

memory. There is no information in the specification how these bits along with the MSB are related

to the LBB streaking effect and how these bits would be processed to show such an effect that will

remove LBB errors. Clearly, the specification and the drawings do not describe or contain a written

description of the invention, in such full, clear, concise, and exact terms so as to enable any person

skilled in the art to make and use the subject matter defined by each of the rejected claims without

undue experimentation.

Applicant further argues on page 16 of the amendment filed, that "in determining whether

an application is enabled, one factor that the examiner must consider, if evidence of it is presented,

is the state of the prior art. During prosecution of this application, the examiner has cited U. S.

Patent No. 5,262,873". Examiner here asserts, that every application at USPTO is examined at its

own merits and therefore this application also has been reexamined at its own merits. If prior art

(here in question, Ishizuka) is enabled, it does not provide an indication that the instant invention is

enabled because applicant itself in paragraph [0011] of the specification says that "Currently, there is

no image correction method able to avoid such LBB effect", which clearly says that the invention is

directed to a particular method of correction and this application needs to be examined at its own

merits. Examiner totally agrees that black and white correction is very well known in the prior art

but the way these corrections (correction methods) are performed are different. Though prior art

might be in the same field of endeavor, the claims of the instant invention are examined at its own

merits in view of the specification filed. For the arguments sake examiner further asserts that

Ishizuka does not teach setting the MSB of the correction signal to a value of 1, which clearly

indicates that Ishizuka's correction method is different and therefore, Ishizuka does not require

providing the details of the MSB of the correction signal. Therefore, instant invention cannot be

considered as enabled in view of the prior art.

Examiner further asserts that applicant in the arguments filed has failed to provide an answer

to the questions raised before and the burden still remains on the applicant. The office still

maintains the rejections.

Claim Rejections - 35 USC § 112

5.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6.   Claims 1-32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the

enablement requirement. The claim(s) contains subject matter, which was not described in the

specification in such a way as to enable one skilled in the art to which it pertains, or with which it is

most nearly connected, to make and/or use the invention.

Regarding claim 1, claim 1 as claimed recites an image correction method which further

comprises (a) obtaining a first correction digital signal during black correction and extracting only a

plurality of last bits of the first correction signal; and (b) obtaining a second correction digital signal during white correction, and extracting only a plurality of first bits of the second correction signal and setting the most significant bit of the second correction digital signal to a value of 1.

As per claim 1, the claim is directed to an image correction method able to avoid error images but claim 1 does not recite any steps of image correction rather it recites extracting of bits from the signals and setting the most significant bit of the second correction digital signal to a value of 1. Now, the question being how extracting the plurality of bits and setting the most significant bit of the second correction digital signal to a value of 1 corrects the image to avoid error images or to generate a corrected image? The support for this kind of image correction has not been found in the specification either, the specification in paragraph [0020] recites "

[0020]   According to the above, the present invention provides an image correction method able to avoid error images. According to two opposite characteristics of black and white, only the last few bits of the digital signal obtained by scanning are extracted during black correction. While performing white correction, only the first few bits of the digital signal obtained by scanning are extracted, and the most significant bit of the digital signal is configured as 1. Therefore, the LBB effect on the image caused by dust or spot on the correction document is avoided. Further, in the digital signal obtained by scanning, fewer bits are extracted, so that the required memory capacity is reduced.   ",

and paragraphs [0026] and [0027] recites "

[0026]   Referring to Figure 2, an image correction method able to avoid error images in one embodiment of the present invention is illustrated. In the image correction method, firstly, whether a black correction or a white correction is performed is determined in step s202. While performing black correction, the scanner uses the lamp to radiate a light on a first correction document. The light reflected by the document is then incident on a reflection mirror of an optical system, and focused by a lens of the optical system to obtain a first correction optical signal. An optoelectric conversion is performed to convert the first correction optical signal into an electrical first correction analog signal by an image extraction device (such as charge-coupled device). The first correction analog signal is then converted into a first correction digital signal by an analog/digital converter. While performing black correction, the response of the image extraction device is small, such that the first few bits of the first digital correction signal are zero, and only the last few bits (such as last 8 bits) are extracted. That is, only a few bits at the end of the first digital correction signal are extracted. Thus, the LBB effect caused by dust or spot on the first correction document is avoided. Further, the first correction document includes a black correction document (s204). Only the extracted last few bits of the first correction digital signal are stored in a memory such as a random access memory, so that the storage capacity requirement of the memory is reduced (s206).

[0027]

> When white correction is performed, the lamp of the scanner is incident on the
> second document. The light is then reflected by the second document, incident on the
> reflection mirror of the optical system, and focused by the lens of the optical system
> to obtain a second correction optical signal. The second correction optical signal is
> converted into an electrical second correction analog electric signal by optoelectric
> conversion via the image extraction device. The second correction analog electric
> signal is converted into a second correction digital signal via the analog/digital
> converter. While performing white correction, the response of the image extraction
> device is significant, so that the most significant bit of the second digital correction
> signal has to be set as 1. Therefore, only the first few bits (such as first 8 bits) of the
> second correction digital signal are extracted. In this way, the LBB effect caused in the
> scanned image by dust or spot on the second correction document is avoided. The
> second correction document includes a white correction document (s208). The   ".

The specification as cited above in paragraphs [0020], [0026] and [0027] clearly shows only

extraction of bits from the image signals and setting the MSB of the second correction signal to a

value of 1 and further saving these extracted bits in the memory. The same is interpreted by the

figure 2. The specification further recites that extracting the bits and setting the MSB of the second

correction signal to a value of 1 would avoid the LBB effect caused in the scanned image by dust or

spot on the second correction document. Again, the question being how extracting the plurality of

bits and setting the most significant bit of the second correction digital signal to a value of 1 corrects

the image to avoid error images?

Clearly, the specification would not enable one skilled in the art to make the claimed

invention, which being the image correction by just extracting the plurality of bits and setting the

MSB of the second correction signal to a value of 1 and saving these extracted bits. The

specification does not teach how such extracting the plurality of bits and setting the MSB of the

second correction signal to a value of 1 would provide image correction or would avoid LBB effect

in the image. Clearly from the cited portions of the specification, after the bits are extracted and the MSB of the second correction signal is set to a value of 1, the data is stored in the memory and there is no information in the specification how this data is further used to correct the specified error such as LBB error. The description of the invention do not have any information on how setting of MSB of the second correction to 1 along with the few extracted bits would be used to correct the error since there is no processing of these bits after these bits are saved in the memory. There is no information in the specification how these bits along with the MSB are related to the LBB streaking effect and how these bits would be processed to show such an effect that will remove LBB errors. The specification and the drawings do not describe or contain a written description of the invention, in such full, clear, concise, and exact terms so as to enable any person skilled in the art to make and use the subject matter defined by each of the rejected claims without undue experimentation. All other claims stand rejected under 35 U.S.C. 112, first paragraph, at least for the same reasons as applied to claim 1 before.

7.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manav Seth whose telephone number is (571) 272-7456. The examiner can normally be reached on Monday to Friday from 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta, can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Manav Seth
Art Unit 2624
May 6, 2007

VIKKRAM BALI
PRIMARY EXAMINER